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Python Programming for Raspberry Pi, Sams
Teach Yourself in 24 Hours
Practical Raspberry Pi
Exploring Raspberry Pi
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Raspberry Pi 4 Complete Manual
Raspberry Pi Cookbook
Learning Computer Architecture with Raspberry Pi
The Official BBC micro:bit User Guide
Learning Python with Raspberry Pi
Beginning Programming with Python For Dummies
Raspberry Pi For Dummies
Raspberry Pi User Guide

Advanced Penetration Testing

In *Learn Robotics with Raspberry Pi*, you'll learn how to build and code your own robot projects with just the Raspberry Pi microcomputer and a few easy-to-get components - no prior experience necessary! *Learn Robotics with Raspberry Pi* will take you from inexperienced maker to robot builder. You'll start off building a two-wheeled robot powered by a Raspberry Pi minicomputer and then program it using Python, the world's most popular programming language. Gradually, you'll improve your robot by adding increasingly advanced functionality until it can follow lines, avoid obstacles, and even recognize objects of a certain size and color using computer vision. Learn how to: - Control your robot remotely using only a Wii remote - Teach your robot to use sensors to avoid obstacles - Program your robot to follow a line autonomously - Customize your robot with LEDs and speakers to make it light up and play sounds - See what your robot sees with a Pi Camera As you work through the book, you'll learn fundamental electronics skills like how to wire up parts, use resistors and regulators, and determine how much power your robot needs. By the end, you'll have learned the basics of coding in Python and know enough about working with hardware like LEDs, motors, and sensors to expand your creations beyond simple robots.

Raspberry Pi Projects for Kids - Second Edition

Use your Raspberry Pi to get smart about computing fundamentals In the 1980s, the tech revolution was kickstarted by a flood of relatively inexpensive, highly programmable computers like the Commodore. Now, a second revolution in computing is beginning with the Raspberry Pi. Learning Computer Architecture with the Raspberry Pi is the premier guide to understanding the components of the most exciting tech product available. Thanks to this book, every Raspberry Pi owner can understand how the computer works and how to access all of its hardware and software capabilities. Now, students, hackers, and casual users alike can discover how computers work with Learning Computer Architecture with the Raspberry Pi. This book explains what each and every hardware component does, how they relate to one another, and how they correspond to the components of other computing systems. You'll also learn how programming works and how the operating system relates to the Raspberry Pi's physical components. Co-authored by Eben Upton, one of the creators of the Raspberry Pi, this is a companion volume to the Raspberry Pi User Guide An affordable solution for learning about computer system design considerations and experimenting with low-level programming Understandable descriptions of the functions of memory storage, Ethernet, cameras, processors, and more Gain knowledge of computer design and operation in general by exploring the basic structure of the Raspberry Pi The Raspberry Pi was created to bring forth a new generation of computer scientists, developers, and architects who understand the inner workings of the computers that have become essential to our daily lives. Learning Computer Architecture with the

Raspberry Pi is your gateway to the world of computer system design.

Hacking Raspberry Pi

Coding for kids is cool with Raspberry Pi and this elementary guide Even if your kids don't have an ounce of computer geek in them, they can learn to code with Raspberry Pi and this wonderful book. Written for 11- to 15-year-olds and assuming no prior computing knowledge, this book uses the wildly successful, low-cost, credit-card-sized Raspberry Pi computer to explain fundamental computing concepts. Young people will enjoy going through the book's nine fun projects while they learn basic programming and system administration skills, starting with the very basics of how to plug in the board and turn it on. Each project includes a lively and informative video to reinforce the lessons. It's perfect for young, eager self-learners—your kids can jump in, set up their Raspberry Pi, and go through the lessons on their own. Written by Carrie Anne Philbin, a high school teacher of computing who advises the U.K. government on the revised ICT Curriculum Teaches 11- to 15-year-olds programming and system administration skills using Raspberry Pi Features 9 fun projects accompanied by lively and helpful videos Raspberry Pi is a \$35/£25 credit-card-sized computer created by the non-profit Raspberry Pi Foundation; over a million have been sold Help your children have fun and learn computing skills at the same time with Adventures in Raspberry Pi.

Raspberry Pi Projects

Raspberry Pi is taking off like a rocket! You can use this amazing, dirt-cheap, credit card-sized computer to learn powerful hardware hacking techniques as you build incredibly creative and useful projects! This complete, full-color guide requires absolutely no experience with either hardware hacking or computer programming. Colorful photos guide you through each project, and the step-by-step instructions are stunningly clear and easy!

Electronics All-in-One For Dummies

Expand Raspberry Pi capabilities with fundamental engineering principles Exploring Raspberry Pi is the innovators guide to bringing Raspberry Pi to life. This book favors engineering principles over a 'recipe' approach to give you the skills you need to design and build your own projects. You'll understand the fundamental principles in a way that transfers to any type of electronics, electronic modules, or external peripherals, using a "learning by doing" approach that caters to both beginners and experts. The book begins with basic Linux and programming skills, and helps you stock your inventory with common parts and supplies. Next, you'll learn how to make parts work together to achieve the goals of your project, no matter what type of components you use. The companion website provides a full

repository that structures all of the code and scripts, along with links to video tutorials and supplementary content that takes you deeper into your project. The Raspberry Pi's most famous feature is its adaptability. It can be used for thousands of electronic applications, and using the Linux OS expands the functionality even more. This book helps you get the most from your Raspberry Pi, but it also gives you the fundamental engineering skills you need to incorporate any electronics into any project. Develop the Linux and programming skills you need to build basic applications Build your inventory of parts so you can always "make it work" Understand interfacing, controlling, and communicating with almost any component Explore advanced applications with video, audio, real-world interactions, and more Be free to adapt and create with Exploring Raspberry Pi.

Raspberry Pi For Kids For Dummies

This book is for kids who wish to develop games and applications using the Raspberry Pi. No prior experience in programming is necessary; you need only a Raspberry Pi and the required peripherals.

Adventures in Minecraft

Make the most out of the world's first truly compact computer It's the size of a

credit card, it can be charged like a smartphone, it runs on open-source Linux, and it holds the promise of bringing programming and playing to millions at low cost. And now you can learn how to use this amazing computer from its co-creator, Eben Upton, in Raspberry Pi User Guide. Cowritten with Gareth Halfacree, this guide gets you up and running on Raspberry Pi, whether you're an educator, hacker, hobbyist, or kid. Learn how to connect your Pi to other hardware, install software, write basic programs, and set it up to run robots, multimedia centers, and more. Gets you up and running on Raspberry Pi, a high-tech computer the size of a credit card Helps educators teach students how to program Covers connecting Raspberry Pi to other hardware, such as monitors and keyboards, how to install software, and how to configure Raspberry Pi Shows you how to set up Raspberry Pi as a simple productivity computer, write basic programs in Python, connect to servos and sensors, and drive a robot or multimedia center Adults, kids, and devoted hardware hackers, now that you've got a Raspberry Pi, get the very most out of it with Raspberry Pi User Guide.

Getting Started with Raspberry Pi

Internet of Things A to Z

Start programming quickly with this super-fun guide to Raspberry Pi Adventures in Raspberry Pi, 2nd Edition includes 9 cool projects that show you how to set up and start developing on your Raspberry Pi. Updated for the release of the Rev 3 board, this second edition covers all the latest features and tells you everything you need to know. Written specifically for 11-15 year-olds, this book uses the wildly successful, Raspberry Pi to explain the fundamentals of computing. You'll have a blast learning basic programming and system administration skills, beginning with the very basics of how to plug in the board and turn it on. Each project includes an instructional video so you can jump right in and start going through the lessons on your own. This hands-on book gets you up and running fast, with fun projects that let you explore. Learn how to "talk to" your Raspberry Pi Create games and stories with Scratch Program with Turtle Graphics and Python Code music and create a Raspberry Pi jukebox If you want to get started programming today, Adventures in Raspberry Pi is the ultimate hands-on guide.

Raspberry Pi User Guide

The essential preview guide to getting started with Raspberry Pi ® computing and programming Originally conceived of as a fun, easy way for kids (and curious adults) to learn computer programming, the Raspberry Pi quickly evolved into a remarkably robust, credit-card-size computer that can be used for everything from playing HD videos and hacking around with hardware to learning to program! Co-

authored by one of the creators of the Raspberry Pi, this special preview eBook fills you in on everything you need to know to get up and running on your Raspberry Pi in no time, including how to:

- Connect to a keyboard, mouse, monitor and other peripherals
- Install software
- Master basic Linux system administration
- Configure your Raspberry Pi
- Connect to wired or wireless networks
- Diagnose and troubleshoot common problems
- Use the GPIO port to flash an LED or read a button

Meet the Raspberry Pi provides a sneak peek preview of how to make the most out of the world's first truly compact computer.

Python Pushing the Limits

"The world of Raspberry Pi is evolving quickly, with many new interface boards and software libraries becoming available all the time. In this cookbook, prolific hacker and author Simon Monk provides more than 200 practical recipes for running this tiny low-cost computer with Linux, programming it with Python, and hooking up sensors, motors and other hardware--including Arduino. You'll also learn basic principles to help you use new technologies with Raspberry Pi as its ecosystem develops. Python and other code examples from the book are available on GitHub. This cookbook is ideal for programmers and hobbyists familiar with the Pi through resources such as *Getting Started with Raspberry Pi* (O'Reilly)."

Python Projects

Explains how to leverage the revolutionary Raspberry Pi computer in order to learn the versatile Python programming language. Original.

Duik Bassel - User Guide

A comprehensive and accessible introduction to the development of embedded systems and Internet of Things devices using ARM mbed Designing Embedded Systems and the Internet of Things (IoT) with the ARM mbed offers an accessible guide to the development of ARM mbed and includes a range of topics on the subject from the basic to the advanced. ARM mbed is a platform and operating system based on 32-bit ARM Cortex-M microcontrollers. This important resource puts the focus on ARM mbed NXP LPC1768 and FRDM-K64F evaluation boards. NXP LPC1768 has powerful features such as a fast microcontroller, various digital and analog I/Os, various serial communication interfaces and a very easy to use Web based compiler. It is one of the most popular kits that are used to study and create projects. FRDM-K64F is relatively new and largely compatible with NXP LPC1768 but with even more powerful features. This approachable text is an ideal guide that is divided into four sections; Getting Started with the ARM mbed, Covering the Basics, Advanced Topics and Case Studies. This getting started guide: Offers a

clear introduction to the topic Contains a wealth of original and illustrative case studies Includes a practical guide to the development of projects with the ARM mbed platform Presents timely coverage of how to develop IoT applications Designing Embedded Systems and the Internet of Things (IoT) with the ARM mbed offers students and R&D engineers a resource for understanding the ARM mbed NXP LPC1768 evaluation board.

Exploring BeagleBone

Prepare for success on the New Cloud Essentials+ Exam (CLO-002) The latest title in the popular Sybex Study Guide series, CompTIA Cloud Essentials+ Study Guide helps candidates prepare for taking the NEW CompTIA Cloud Essentials+ Exam (CLO-002). Ideal for non-technical professionals in IT environments, such as marketers, sales people, and business analysts, this guide introduces cloud technologies at a foundational level. This book is also an excellent resource for those with little previous knowledge of cloud computing who are looking to start their careers as cloud administrators. The book covers all the topics needed to succeed on the Cloud Essentials+ exam and provides knowledge and skills that any cloud computing professional will need to be familiar with. This skill set is in high demand, and excellent careers await in the field of cloud computing. Gets you up to speed on fundamental cloud computing concepts and technologies Prepares IT professionals and those new to the cloud for the CompTIA Cloud Essentials+

exam objectives Provides practical information on making decisions about cloud technologies and their business impact Helps candidates evaluate business use cases, financial impacts, cloud technologies, and deployment models Examines various models for cloud computing implementation, including public and private clouds Identifies strategies for implementation on tight budgets Inside is everything candidates need to know about cloud concepts, the business principles of cloud environments, management and technical operations, cloud security, and more. Readers will also have access to Sybex's superior online interactive learning environment and test bank, including chapter tests, practice exams, electronic flashcards, and a glossary of key terms.

Raspberry Pi Projects For Dummies

Learn valuable programming skills while building your own Minecraft adventure! If you love playing Minecraft and want to learn how to code and create your own mods, this book was designed just for you. Working within the game itself, you'll learn to set up and run your own local Minecraft server, interact with the game on PC, Mac and Raspberry Pi, and develop Python programming skills that apply way beyond Minecraft. You'll learn how to use coordinates, how to change the player's position, how to create and delete blocks and how to check when a block has been hit. The adventures aren't limited to the virtual - you'll also learn how to connect Minecraft to a BBC micro:bit so your Minecraft world can sense and control objects

in the real world! The companion website gives you access to tutorial videos to make sure you understand the book, starter kits to make setup simple, completed code files, and badges to collect for your accomplishments. Written specifically for young people by professional Minecraft geeks, this fun, easy-to-follow guide helps you expand Minecraft for more exciting adventures, and put your personal stamp on the world you create. Your own Minecraft world will be unlike anyone else's on the planet, and you'll pick up programming skills that will serve you for years to come on other devices and projects. Among other things, you will: Write Minecraft programs in Python® on your Mac®, PC or Raspberry Pi® Build houses, structures, and make a 3D duplicating machine Build intelligent objects and program an alien invasion Build huge 2D and 3D structures like spheres and pyramids Build a custom game controller using a BBC micro:bit™ Plan and write a complete interactive arena game Adventures in Minecraft teaches you how to make your favourite game even better, while you learn to program by customizing your Minecraft journey.

Adventures in Python

What can you do with the Raspberry Pi, a \$35 computer the size of a credit card? All sorts of things! If you're learning how to program, or looking to build new electronic projects, this hands-on guide will show you just how valuable this flexible little platform can be. This book takes you step-by-step through many fun and

educational possibilities. Take advantage of several preloaded programming languages. Use the Raspberry Pi with Arduino. Create Internet-connected projects. Play with multimedia. With Raspberry Pi, you can do all of this and more. Get acquainted with hardware features on the Pi's board Learn enough Linux to move around the operating system Pick up the basics of Python and Scratch—and start programming Draw graphics, play sounds, and handle mouse events with the Pygame framework Use the Pi's input and output pins to do some hardware hacking Discover how Arduino and the Raspberry Pi complement each other Integrate USB webcams and other peripherals into your projects Create your own Pi-based web server with Python

Engineering Autonomous Vehicles and Robots

The go-to guide to getting started with the BBC micro:bit and exploring all of its amazing capabilities. The BBC micro:bit is a pocket-sized electronic development platform built with education in mind. It was developed by the BBC in partnership with major tech companies, communities, and educational organizations to provide kids with a fun, easy, inexpensive way to develop their digital skills. With it, kids (and grownups) can learn basic programming and coding while having fun making virtual pets, developing games, and a whole lot more. Written by internationally bestselling tech author Gareth Halfacree and endorsed by the Micro:bit Foundation, *The Official BBC micro:bit User Guide* contains what you need to know to get up

and running fast with the BBC micro:bit. Learn everything from taking your first steps with the BBC micro:bit to writing your own programs. You'll also learn how to expand its capabilities with add-ons through easy-to-follow, step-by-step instructions. Set up your BBC micro:bit and develop your digital skills Write code in JavaScript Blocks, JavaScript, and Python Discover the BBC micro:bit's built-in sensors Connect the BBC micro:bit to a Raspberry Pi to extend its capabilities Build your own circuits and create hardware The Official BBC micro:bit User Guide is your go-to source for learning all the secrets of the BBC micro:bit. Whether you're just beginning or have some experience, this book allows you to dive right in and experience everything the BBC micro:bit has to offer.

Adventures in Raspberry Pi

A comprehensive collection of 8 books in 1 offering electronics guidance that can't be found anywhere else! If you know a breadboard from a breadbox but want to take your hobby electronics skills to the next level, this is the only reference you need. Electronics All-in-One For Dummies has done the legwork for you — offering everything you need to enhance your experience as an electronics enthusiast in one convenient place. Written by electronics guru and veteran For Dummies author Doug Lowe, this down-to-earth guide makes it easy to grasp such important topics as circuits, schematics, voltage, and safety concerns. Plus, it helps you have tons of fun getting your hands dirty working with the Raspberry Pi, creating special

effects, making your own entertainment electronics, repairing existing electronics, learning to solder safely, and so much more. Create your own schematics and breadboards Become a circuit-building expert Tackle analog, digital, and car electronics Debunk and grasp confusing electronics concepts If you're obsessed with all things electronics, look no further! This comprehensive guide is packed with all the electronics goodies you need to add that extra spark to your game!

Designing Embedded Systems and the Internet of Things (IoT) with the ARM mbed

Join the Raspberry revolution with these fun and easy Pi projects The Raspberry Pi has opened up a whole new world of innovation for everyone from hardware hackers and programmers to students, hobbyists, engineers, and beyond. Featuring a variety of hands-on projects, this easy-to-understand guide walks you through every step of the design process and will have you creating like a Raspberry Pi pro in no time. You'll learn how to prepare your workspace, assemble the necessary tools, work with test equipment, and find your way around the Raspberry Pi before moving on to a series of fun, lively projects that brings some power to your plain ol' Pi. Introduces Raspberry Pi basics and gives you a solid understanding of all the essentials you'll need to take on your first project Includes an array of fun and useful projects that show you how to do everything from

creating a magic light wand to enhancing your designs with Lego sensors, installing and writing games for the RISC OS, building a transistor tester, and more Provides an easy, hands-on approach to learning more about electronics, programming, and interaction design for Makers and innovators of all ages Bring the power of Pi to your next cool creation with Raspberry Pi Projects For Dummies!

BeagleBone For Dummies

Practical Raspberry Pi takes you quickly through the hardware and software basics of the Raspberry Pi. Author Brendan Horan then gets you started on a series of fun and practical projects, including a simple temperature sensor, a media center, a real-time clock, and even a security monitoring device, all of which require minimal programming experience. Along with these projects, you'll learn all about the Raspberry Pi hardware, including how it can be so powerful and still so small and inexpensive, why it's so suitable as a video player, and how you can customize it for different tasks, including running different operating systems on it, including Android and RISC OS. The Raspberry Pi is an inexpensive but relatively powerful little computer. It was designed to get kids interested in computing and programming, but it's also a great platform for hardware hackery. The projects in this book will get you deep into the hardware to show you what the Raspberry Pi can really do.

Java All-In-One Desk Reference For Dummies

Program your own Raspberry Pi projects Create innovative programs and fun games on your tiny yet powerful Raspberry Pi. In this book, electronics guru Simon Monk explains the basics of Raspberry Pi application development, while providing hands-on examples and ready-to-use scripts. See how to set up hardware and software, write and debug applications, create user-friendly interfaces, and control external electronics. Do-it-yourself projects include a hangman game, an LED clock, and a software-controlled roving robot. Boot up and configure your Raspberry Pi Navigate files, folders, and menus Create Python programs using the IDLE editor Work with strings, lists, and functions Use and write your own libraries, modules, and classes Add Web features to your programs Develop interactive games with Pygame Interface with devices through the GPIO port Build a Raspberry Pi Robot and LED Clock Build professional-quality GUIs using Tkinter

Meet the Raspberry Pi

In-depth instruction and practical techniques for buildingwith the BeagleBone embedded Linux platform Exploring BeagleBone is a hands-on guide to bringinggadgets, gizmos, and robots to life using the popular BeagleBoneembedded Linux platform. Comprehensive content and deep

detail provide more than just a BeagleBone instruction manual—you'll also learn the underlying engineering techniques that will allow you to create your own projects. The book begins with a foundational primer on essential skills, and then gradually moves into communication, control, and advanced applications using C/C++, allowing you to learn at your own pace. In addition, the book's companion website features instructional videos, source code, discussion forums, and more, to ensure that you have everything you need. The BeagleBone's small size, high performance, low cost, and extreme adaptability have made it a favorite development platform, and the Linux software base allows for complex yet flexible functionality. The BeagleBone has applications in smart buildings, robot control, environmental sensing, to name a few; and, expansion boards and peripherals dramatically increase the possibilities. Exploring BeagleBone provides a reader-friendly guide to the device, including a crash course in computer engineering. While following step by step, you can:

- Get up to speed on embedded Linux, electronics, and programming
- Master interfacing electronic circuits, buses and modules, with practical examples
- Explore the Internet-connected BeagleBone and the BeagleBone with a display
- Apply the BeagleBone to sensing applications, including video and sound
- Explore the BeagleBone's Programmable Real-Time Controllers

Hands-on learning helps ensure that your new skills stay with you, allowing you to design with electronics, modules, or peripherals even beyond the BeagleBone. Insightful guidance and online peer support help you transition from beginner to expert as you master the techniques presented in Exploring

BeagleBone, the practical handbook for the popular computing platform.

Raspberry Pi Projects

Build a better defense against motivated, organized, professional attacks. *Advanced Penetration Testing: Hacking the World's Most Secure Networks* takes hacking far beyond Kali Linux and Metasploit to provide a more complex attack simulation. Featuring techniques not taught in any certification prep or covered by common defensive scanners, this book integrates social engineering, programming, and vulnerability exploits into a multidisciplinary approach for targeting and compromising high security environments. From discovering and creating attack vectors, and moving unseen through a target enterprise, to establishing command and exfiltrating data—even from organizations without a direct Internet connection—this guide contains the crucial techniques that provide a more accurate picture of your system's defense. Custom coding examples use VBA, Windows Scripting Host, C, Java, JavaScript, Flash, and more, with coverage of standard library applications and the use of scanning tools to bypass common defensive measures. Typical penetration testing consists of low-level hackers attacking a system with a list of known vulnerabilities, and defenders preventing those hacks using an equally well-known list of defensive scans. The professional hackers and nation states on the forefront of today's threats operate at a much more complex level—and this book shows you how to defend your high security

network. Use targeted social engineering pretexts to create the initial compromise. Leave a command and control structure in place for long-term access. Escalate privilege and breach networks, operating systems, and trust structures. Infiltrate further using harvested credentials while expanding control. Today's threats are organized, professionally-run, and very much for-profit. Financial institutions, health care organizations, law enforcement, government agencies, and other high-value targets need to harden their IT infrastructure and human capital against targeted advanced attacks from motivated professionals. Advanced Penetration Testing goes beyond Kali linux and Metasploit and to provide you advanced pen testing for high security networks.

Python For Everyone

In just 24 sessions of one hour or less, Sams Teach Yourself Python Programming for Raspberry Pi in 24 Hours teaches you Python programming on Raspberry Pi, so you can start creating awesome projects for home automation, home theater, gaming, and more. Using this book's straightforward, step-by-step approach, you'll move from the absolute basics all the way through network and web connections, multimedia, and even connecting with electronic circuits for sensing and robotics. Every lesson and case study application builds on what you've already learned, giving you a rock-solid foundation for real-world success! Step-by-step instructions carefully walk you through the most common Raspberry Pi Python programming

tasks. Quizzes at the end of each chapter help you test your knowledge. By the Way notes present interesting information related to the discussion. Did You Know? tips offer advice or show you easier ways to perform tasks. Watch Out! cautions alert you to possible problems and give you advice on how to avoid them. Get your Raspberry Pi and choose the right low-cost peripherals Set up Raspian Linux and the Python programming environment Learn Python basics, including arithmetic and structured commands Master Python 3 lists, tuples, dictionaries, sets, strings, files, and modules Reuse the same Python code in multiple locations with functions Manipulate string data efficiently with regular expressions Practice simple object-oriented programming techniques Use exception handling to make your code more reliable Program modern graphical user interfaces with Raspberry Pi and OpenGL Create Raspberry Pi games with the PyGame library Learn network, web, and database techniques you can also use in business software Write Python scripts that send email Interact with other devices through Raspberry Pi's GPIO interface Walk through example Raspberry Pi projects that inspire you to do even more

Learn Robotics with Raspberry Pi

Get your slice of Raspberry Pi With the invention of the unique credit card-sized single-board computer comes a new wave of hardware geeks, hackers, and hobbyists who are excited about the possibilities with the Raspberry Pi—and this is the perfect guide to get you started. With this down-to-earth book, you'll quickly

discover why the Raspberry Pi is in high demand! There's a reason the Raspberry Pi sold a million units in its first year, and you're about to find out why! In *Raspberry Pi For Dummies, 3rd Edition* veteran tech authors Sean McManus and Mike Cook make it easier than ever to get you up and running on your Raspberry Pi, from setting it up, downloading the operating system, and using the desktop environment to editing photos, playing music and videos, and programming with Scratch—and everything in between. Covers connecting the Pi to other devices such as a keyboard, mouse, monitor, and more Teaches you basic Linux System Admin Explores creating simple hardware projects Shows you how to create web pages *Raspberry Pi For Dummies, 3rd Edition* makes computing as easy as pie!

Assembly Language Step-by-step

A guide to completing Python projects for those ready to take their skills to the next level Python Projects is the ultimate resource for the Python programmer with basic skills who is ready to move beyond tutorials and start building projects. The preeminent guide to bridge the gap between learning and doing, this book walks readers through the "where" and "how" of real-world Python programming with practical, actionable instruction. With a focus on real-world functionality, Python Projects details the ways that Python can be used to complete daily tasks and bring efficiency to businesses and individuals alike. Python Projects is written specifically for those who know the Python syntax and lay of the land, but may still

be intimidated by larger, more complex projects. The book provides a walk-through of the basic set-up for an application and the building and packaging for a library, and explains in detail the functionalities related to the projects. Topics include: *How to maximize the power of the standard library modules *Where to get third party libraries, and the best practices for utilization *Creating, packaging, and reusing libraries within and across projects *Building multi-layered functionality including networks, data, and user interfaces *Setting up development environments and using virtualenv, pip, and more Written by veteran Python trainers, the book is structured for easy navigation and logical progression that makes it ideal for individual, classroom, or corporate training. For Python developers looking to apply their skills to real-world challenges, Python Projects is a goldmine of information and expert insight.

CompTIA Cloud Essentials+ Study Guide

Free Python to be all it can be Open source Python is among the top ten programming languages worldwide, with diverse uses ranging from enterprise-level corporate solutions to programming with Raspberry Pi. If you're an experienced developer, this guide will help you take your Python programs to a higher level. Explore what's new in Python 3, venture into metaprogramming, learn about functional and aspect-oriented programming with Python, and understand small and large scale optimization. Learn about Python tools, testing, best

practices, scientific tools, and more. The popular Python open source programming language is used for everything from enterprise-level corporate solutions to Raspberry Pi programming to programming for Google, Spotify, and the BBC This guide gives experienced developers the expert guidance necessary to push Python to its limits, optimizing, extending, and complementing it Examines what's new in Python 3 and ventures into metaprogramming, decorators, descriptors, functional programming, and aspect-oriented programming with Python Also covers a practical definition of Pythonic, with examples; optimization, including small and large scale and profiling; virtualenv, pylint, and other tools; best practices; scientific Python tools; and standard library review Python Programming Pushing the Limits is a deep dive into advanced Python that will help even knowledgeable developers push the language to its limits.

Adventures in Raspberry Pi

Python for Everyone, 3rd Edition is an introduction to programming designed to serve a wide range of student interests and abilities, focused on the essentials, and on effective learning. It is suitable for a first course in programming for computer scientists, engineers, and students in other disciplines. This text requires no prior programming experience and only a modest amount of high school algebra. Objects are used where appropriate in early chapters and students start designing and implementing their own classes in Chapter 9. New to this edition are examples

and exercises that focus on various aspects of data science.

Python Programming for Raspberry Pi, Sams Teach Yourself in 24 Hours

Learn to build software and hardware projects featuring the Raspberry Pi! Congratulations on becoming a proud owner of a Raspberry Pi! Following primers on getting your Pi up and running and programming with Python, the authors walk you through 16 fun projects of increasing sophistication that let you develop your Raspberry Pi skills. Among other things you will: Write simple programs, including a tic-tac-toe game Re-create vintage games similar to Pong and Pac-Man Construct a networked alarm system with door sensors and webcams Build Pi-controlled gadgets including a slot car racetrack and a door lock Create a reaction timer and an electronic harmonograph Construct a Facebook-enabled Etch A Sketch-type gadget and a Twittering toy Raspberry Pi Projects is an excellent way to dig deeper into the capabilities of the Pi and to have great fun while doing it.

Practical Raspberry Pi

Assembly language is as close to writing machine code as you can get without writing in pure hexadecimal. Since it is such a low-level language, it's not practical

in all cases, but should definitely be considered when you're looking to maximize performance. With *Assembly Language* by Chris Rose, you'll learn how to write x64 assembly for modern CPUs, first by writing inline assembly for 32-bit applications, and then writing native assembly for C++ projects. You'll learn the basics of memory spaces, data segments, CISC instructions, SIMD instructions, and much more. Whether you're working with Intel, AMD, or VIA CPUs, you'll find this book a valuable starting point since many of the instructions are shared between processors. This updated and expanded second edition of *Book* provides a user-friendly introduction to the subject, Taking a clear structural framework, it guides the reader through the subject's core elements. A flowing writing style combines with the use of illustrations and diagrams throughout the text to ensure the reader understands even the most complex of concepts. This succinct and enlightening overview is a required reading for all those interested in the subject. We hope you find this book useful in shaping your future career & Business.

Exploring Raspberry Pi

The easy way to learn programming fundamentals with Python Python is a remarkably powerful and dynamic programming language that's used in a wide variety of application domains. Some of its key distinguishing features include a very clear, readable syntax, strong introspection capabilities, intuitive object orientation, and natural expression of procedural code. Plus, Python features full

modularity, supporting hierarchical packages, exception-based error handling, and modules easily written in C, C++, Java, R, or .NET languages, such as C#. In addition, Python supports a number of coding styles that include: functional, imperative, object-oriented, and procedural. Due to its ease of use and flexibility, Python is constantly growing in popularity—and now you can wear your programming hat with pride and join the ranks of the pros with the help of this guide. Inside, expert author John Paul Mueller gives a complete step-by-step overview of all there is to know about Python. From performing common and advanced tasks, to collecting data, to interacting with package—this book covers it all! Use Python to create and run your first application Find out how to troubleshoot and fix errors Learn to work with Anaconda and use Magic Functions Benefit from completely updated and revised information since the last edition If you've never used Python or are new to programming in general, Beginning Programming with Python For Dummies is a helpful resource that will set you up for success.

Programming the Raspberry Pi: Getting Started with Python

Learn the Raspberry Pi 3 from the experts! Raspberry Pi User Guide, 4th Edition is the "unofficial official" guide to everything Raspberry Pi 3. Written by the Pi's creator and a leading Pi guru, this book goes straight to the source to bring you the ultimate Raspberry Pi 3 manual. This new fourth edition has been updated to cover the Raspberry Pi 3 board and software, with detailed discussion on its wide array of

configurations, languages, and applications. You'll learn how to take full advantage of the mighty Pi's full capabilities, and then expand those capabilities even more with add-on technologies. You'll write productivity and multimedia programs, and learn flexible programming languages that allow you to shape your Raspberry Pi into whatever you want it to be. If you're ready to jump right in, this book gets you started with clear, step-by-step instruction from software installation to system customization. The Raspberry Pi's tremendous popularity has spawned an entire industry of add-ons, parts, hacks, ideas, and inventions. The movement is growing, and pushing the boundaries of possibility along with it—are you ready to be a part of it? This book is your ideal companion for claiming your piece of the Pi. Get all set up with software, and connect to other devices Understand Linux System Admin nomenclature and conventions Write your own programs using Python and Scratch Extend the Pi's capabilities with add-ons like Wi-Fi dongles, a touch screen, and more The credit-card sized Raspberry Pi has become a global phenomenon. Created by the Raspberry Pi Foundation to get kids interested in programming, this tiny computer kick-started a movement of tinkerers, thinkers, experimenters, and inventors. Where will your Raspberry Pi 3 take you? The Raspberry Pi User Guide, 3rd Edition is your ultimate roadmap to discovery.

Raspberry Pi 4 Complete Manual

Eight minibooks comprising nearly 900 pages give developers the tips and

techniques they need to get up and running on the new J2SE 6 (Java Standard Edition 6) and JDK 6 (Java Development Kit 6) This friendly, all-inclusive reference delivers the lowdown on Java language and syntax fundamentals as well as Java server-side programming, with explanations, reference information, and how-to instructions for both beginning and intermediate-to-advanced programmers Minibooks cover Java basics; programming basics; strings, arrays, and collections; programming techniques; Swing; Web programming; files and databases; and fun and games

Raspberry Pi Cookbook

The definitive, easy-to-use guide to the popular BeagleBone board BeagleBone For Dummies is the definitive beginner's guide to using the popular BeagleBone board to learn electronics and programming. Unlike other books that require previous knowledge of electronics, Linux, and Python, this one assumes you know nothing at all, and guides you step-by-step throughout the process of getting acquainted with your BeagleBone Original or BeagleBone Black. You'll learn how to get set up, use the software, build the hardware, and code your projects, with plenty of examples to walk you through the process. You'll move carefully through your first BeagleBone project, then get ideas for branching out from there to create even better, more advanced programs. The BeagleBone is a tiny computer board – about the size of a credit card – that has all the capability of a desktop. Its

affordability and ease of use has made it popular among hobbyists, hardware enthusiasts, and programmers alike, and it's time for you to join their ranks as you officially dive into the world of microcomputers. This book removes the guesswork from using the popular BeagleBone board and shows you how to get up and running in no time. Download the operating system and connect your BeagleBone Learn to navigate the desktop environment Start programming with Python and Bonescript Build your first project, and find plans for many more To learn BeagleBone, you could spend hours on the Internet and still never find the information you need, or you can get everything you need here. This book appeals to all new and inexperienced hobbyists, tinkerers, electronics gurus, hackers, budding programmers, engineers, and hardware geeks who want to learn how to get the most out of their powerful BeagleBone.

Learning Computer Architecture with Raspberry Pi

Designed for students who want to learn Python programming, an introduction to related open-source language fundamentals and concepts assumes no prior experience throughout nine video-supported, instructive projects that provide an entry into learning other programming languages. Original.

The Official BBC micro:bit User Guide

An introduction to the Raspberri Pi is presented through a series of creative, step-by-step projects that explain the basics of writing computer games, building websites, creating art and more. Original.

Learning Python with Raspberry Pi

Offers a step-by-step guide to building autonomous vehicles and robots, with source code and accompanying videos The first book of its kind on the detailed steps for creating an autonomous vehicle or robot, this book provides an overview of the technology and introduction of the key elements involved in developing autonomous vehicles, and offers an excellent introduction to the basics for someone new to the topic of autonomous vehicles and the innovative, modular-based engineering approach called DragonFly. Engineering Autonomous Vehicles and Robots: The DragonFly Modular-based Approach covers everything that technical professionals need to know about: CAN bus, chassis, sonars, radars, GNSS, computer vision, localization, perception, motion planning, and more. Particularly, it covers Computer Vision for active perception and localization, as well as mapping and motion planning. The book offers several case studies on the building of an autonomous passenger pod, bus, and vending robot. It features a large amount of supplementary material, including the standard protocol and sample codes for chassis, sonar, and radar. GPSD protocol/NMEA protocol and GPS deployment methods are also provided. Most importantly, readers will learn the

philosophy behind the DragonFly modular-based design approach, which empowers readers to design and build their own autonomous vehicles and robots with flexibility and affordability. Offers progressive guidance on building autonomous vehicles and robots Provides detailed steps and codes to create an autonomous machine, at affordable cost, and with a modular approach Written by one of the pioneers in the field building autonomous vehicles Includes case studies, source code, and state-of-the art research results Accompanied by a website with supplementary material, including sample code for chassis/sonar/radar; GPS deployment methods; Vision Calibration methods Engineering Autonomous Vehicles and Robots is an excellent book for students, researchers, and practitioners in the field of autonomous vehicles and robots.

Beginning Programming with Python For Dummies

Learn to build software and hardware projects featuring the Raspberry Pi! Congratulations on becoming a proud owner of a Raspberry Pi! Following primers on getting your Pi up and running and programming with Python, the authors walk you through 16 fun projects of increasing sophistication that let you develop your Raspberry Pi skills. Among other things you will: Write simple programs, including a tic-tac-toe game Re-create vintage games similar to Pong and Pac-Man Construct a networked alarm system with door sensors and webcams Build Pi-controlled gadgets including a slot car racetrack and a door lock Create a reaction timer and

an electronic harmonograph Construct a Facebook-enabled Etch A Sketch-type gadget and a Twittering toy Raspberry Pi Projects is an excellent way to dig deeper into the capabilities of the Pi and to have great fun while doing it.

Raspberry Pi For Dummies

A comprehensive overview of the Internet of Things' core concepts, technologies, and applications Internet of Things A to Z offers a holistic approach to the Internet of Things (IoT) model. The Internet of Things refers to uniquely identifiable objects and their virtual representations in an Internet-like structure. Recently, there has been a rapid growth in research on IoT communications and networks, that confirms the scalability and broad reach of the core concepts. With contributions from a panel of international experts, the text offers insight into the ideas, technologies, and applications of this subject. The authors discuss recent developments in the field and the most current and emerging trends in IoT. In addition, the text is filled with examples of innovative applications and real-world case studies. Internet of Things A to Z fills the need for an up-to-date volume on the topic. This important book: Covers in great detail the core concepts, enabling technologies, and implications of the Internet of Things Addresses the business, social, and legal aspects of the Internet of Things Explores the critical topic of security and privacy challenges for both individuals and organizations Includes a discussion of advanced topics such as the need for standards and interoperability

Contains contributions from an international group of experts in academia, industry, and research. Written for ICT researchers, industry professionals, and lifetime IT learners as well as academics and students, Internet of Things A to Z provides a much-needed and comprehensive resource to this burgeoning field.

Raspberry Pi User Guide

Congratulations on becoming a Raspberry Pi 4 explorer. We're sure you'll enjoy discovering a whole new world of computing and the chance to handcraft your own games, control your own robots and machines, and share your experiences with other Raspberry Pi fanatics. The Raspberry Pi 4 can do a surprising amount. Amateur tech enthusiasts use Pi boards as media centers, file servers, retro games consoles, routers, and network-level ad-blockers, for starters. However that is just a taste of what's possible. There are hundreds of projects out there, where people have used the Pi to build tablets, laptops, phones, robots, smart mirrors, to take pictures on the edge of space, to run experiments on the International Space Station. With the Pi 4 being faster, able to decode 4K video, benefiting from faster storage via USB 3.0, and faster network connections via true Gigabit Ethernet, the door is open to many new uses. It's also the first Pi that supports two screens at one - up to dual 4K@30 displays - a boon for creative who want more desktop space. You don't have to be a rocket scientist to start developing your own projects; the RASPBERRY PI 4 COMPLETE USER MANUAL is here to revolutionize the way you

perceive computing once and for all. Here is a preview of what you will learn:

- Setting up your Raspberry Pi 4
- How to install software
- Installing windows 10 on Raspberry Pi 4
- Raspberry Pi Commands
- How to build robots
- How to make games
- Installing Packages
- Creating and running a Shell Script
- Programming basics using Python
- Running python programs
- Raspberry pi projects
- Much, much, more!

Are you ready to embark on your greatest digital adventure and get more out of your Raspberry Pi 4? Then add this book to your library now

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